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EMENDED DESCRIPTION AND ASSIGNMENT TO THE NEW GENUS RONALEA OF THE IDOTHEID ISOPOD ERICHSONELLA PSEUDOCULATA BOONE

By Robert J. Menzies and Thomas E. Bowman

In 1923 Boone described a new species of idotheid isopod from San Pedro, Calif., under the name *Erichsonella pseudoculata*. Boone's single specimen was a male. More recently a second specimen, this time a female, was collected from *Phyllospadix* at La Jolla, Calif. In all known species of *Erichsonella* the abdomen is unisegmental, without partial sutures at the base. Boone's species, although otherwise fitting nicely into *Erichsonella*, has partial sutures at the base of the abdomen. We are therefore faced with the alternatives of expanding the definition of *Erichsonella* or erecting a new genus for *pseudoculata*. Since the number of partial or complete sutures at the abdominal base appears to be constant at the generic level in idotheid isopods, we have elected to establish a new genus, *Ronalea*, for Boone's species.

In the genus *Eusymmerus* Richardson (1889, p. 852) the abdomen also has one partial suture at its base, but it differs from the new genus in that the coxal plates, visible in dorsal view, are separated only in pereion segments 6 and 7. In *Ronalea* the coxal plates are separated in pereion segments 2–7 as in *Erichsonella*, but are visible in dorsal view only in segments 5–7. Moreover, the general body

conformation of *Eusymmerus*, with the evenly rounded lateral margins of the pereion and pleon, stands in contrast to the irregular nature of these margins in the narrower and less dorsoventrally flattened *Ronalea* and *Erichsonella*.

Boone's description, although detailed, contains a few misleading statements. Although it was stated in her paper that her *Erichsonella pseudoculata* and other isopods described therein would "be more fully discussed and illustrated in a forthcoming monograph," this monograph has not appeared. We are therefore providing illustrations of taxonomically important details and an emended description of Boone's species.

Ronalea, new genus

DIAGNOSIS: Body narrow; lateral margins of pereion and pleon irregular. Flagellum of antenna 2 uniarticulate. Palp of maxilliped composed of four segments. Coxal plates distinct from the segments in pereion segments 2–7, visible dorsally in segments 5–7. Abdomen composed of a single segment with a pair of incomplete lateral sutures at the base. Type species, *R. pseudoculata* (Boone).

Ronalea pseudoculata (Boone), new combination

Erichsonella pseudoculata Boone, 1923, pp. 154–155.

MALE HOLOTYPE: Length 8.2 mm., greatest width at level of pereionite 1, 2.5 mm., USNM 50420.

FEMALE: Oostegites fully developed, length 9.0 mm., greatest width at level of pereionites 3–4, 2.5 mm.

HEAD: Frontal lamina conical, reaching level of distal end of first segment of antenna 1, tip evenly rounded in female, somewhat obtuse in male. Median frontal margin almost straight. Middle portions of lateral margins produced into rounded lobes, in which the swollen eyes are situated. Dorsum with a conspicuous median bifid tubercle projecting anteriad over the frontal margin.

PEREION: Somites without supralateral projections. First somite with anterolateral angles produced into bilobed processes; in the male two pigmented oval areas are present on the lateral parts of the dorsum, hence the specific name given by Boone. Lateral margins of somites 2–5 concave, of somites 6–7 evenly rounded. Each somite with carina on middorsal line; that of somite 1 divided and occupying the length of the somite; those of somites 2–7 single and located near the posterior margins; carinae much more conspicuous in the male. Epimeral plates distinct from pleura in somites 2–7, visible dorsally in somites 5–7; that of somite 5, seen dorsally, quite small and occupying a portion of the middle of the lateral margin; those of somites 6 and 7 well developed and occupying the posterior halves of their somites.

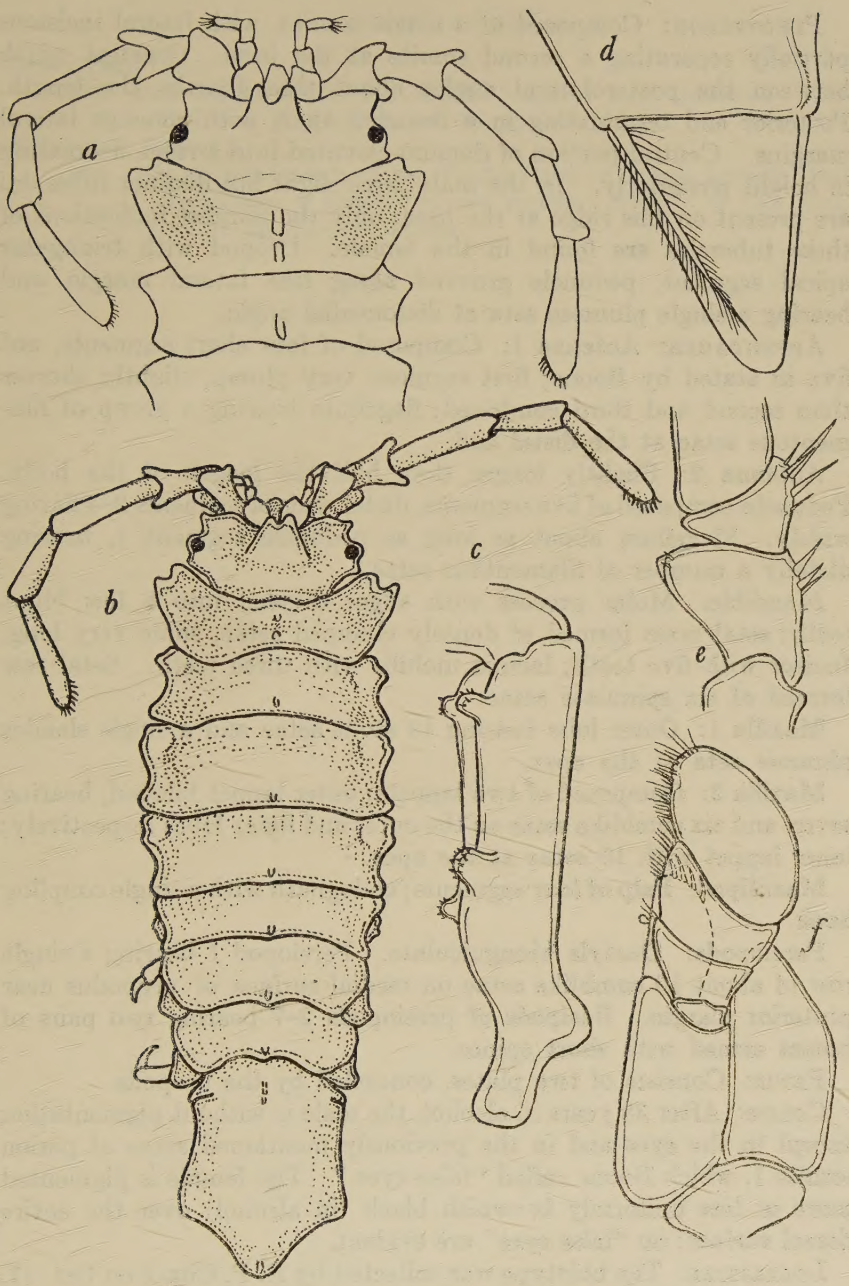

FIGURE 1.—*Ronalea pseudoculata* (Boone): *a*, male holotype, anterior part of body, dorsal view; *b-f*, female: *b*, dorsal view; *c*, basis of pereiopod 7; *d*, left uropod, apical segment, inner surface; *e*, pereiopod 1, merus, and carpus; *f*, maxilliped.

PLEOTELSON: Composed of a single somite, with lateral incisions partially separating a second somite at the base. Greatest width between the posterolateral angles about three-fourths the length. Posterior end terminating in a rounded apex, with concave lateral margins. Central portion of dorsum elevated into a ridge decreasing in height posteriorly. In the male three slight but distinct tubercles are present on this ridge at the base; only the faintest indications of these tubercles are found in the female. Uropod with triangular apical segment, peduncle grooved along free lateral margin and bearing a single plumose seta at distomedial angle.

APPENDAGES: Antenna 1: Composed of four short segments, not five as stated by Boone; first segment very plump, slightly shorter than second and third combined; flagellum bearing a group of filamentous setae at the distal end.

Antenna 2: Slightly longer than half the length of the body. Peduncle composed of five segments, distal ends of segments 2–4 flaring widely. Flagellum about as long as peduncle segment 4, bearing distally a number of filamentous setae.

Mandible: Molar process with edges divided into a few blunt teeth; setal mass formed of densely clumped setae, some very long. Incisor with five teeth; lacinia mobilis with three teeth. Setal row formed of six spinulate setae.

Maxilla 1: Outer lobe bearing 13 stout setae and a single slender plumose seta at the apex.

Maxilla 2: Composed of two lappets; outer lappet bilobed, bearing seven and six comblike setae on the outer and inner lobes respectively; inner lappet with 10 setae at the apex.

Maxilliped: Palp of four segments; endognath with a single coupling hook.

Pereiopods: Dactyls biunguiculate. Pereiopod 1 bearing a single row of about 10 comblike setae on medial surface of propodus near posterior margin. Basipods of pereiopods 2–7 bearing two pairs of bosses armed with short spines.

PENIS: Consists of two plates, concealed by the uropods.

COLOR: After 38 years in alcohol, the male is without pigmentation except in the eyes and in the previously mentioned areas of perion somite 1, which Boone called "false eyes." The female is pigmented more or less uniformly brownish black (in alcohol) over the entire dorsal surface; no "false eyes" are evident.

LOCALITIES: The holotype was collected by E. P. Chace on Oct. 17, 1917, at San Pedro, Calif., from near the foot of the breakwater. The female was collected by R. J. Menzies on Aug. 2, 1942, at La Jolla, Calif., from eel grass (*Phyllospadix*).

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